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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/431,703	11/01/1999	STEVEN W. BROWN	APPL-P2822	9101

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EXAMINER

PARK, ILWOO

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/431,703

Applicant(s)

BROWN, STEVEN W.

Examiner

Ilwoo Park

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 10-31 are presented for examination.
2. Shima et al and Levy et al were cited as prior art in the previous office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 10-13, 15-17, 21-24, and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Shima et al., US patent No. 6,446,142.

As to claims 10 and 21, Shima et al teach a method for providing a transaction layer [fig. 1] for a module having at least one node connected to a serial bus [IEEE 1394 serial bus] that configures a link device for each of said at least one nodes comprising:

detecting [col. 3, lines 13-22 and col. 3, lines 34-40] a link driver;

receiving [col. 3, lines 13-20; col. 3, lines 38-40; col. 3, lines 61-63] capabilities [col. 3, lines 13-20; col. 5, lines 27-30] of said link driver;

generating [col. 3, lines 41-42; col. 4, lines 1-31] a link driver configuration [object] for said link driver from said capabilities of said driver; and

loading [col. 3, lines 22-37; col. 4, lines 1-31; col. 5, lines 41-47] said link driver configuration into said link driver.

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5. As to claims 11 and 22, Shima et al teach querying [col. 6, lines 21-25] said link driver for said capabilities.

6. As to claims 12 and 23, Shima et al teach receiving said capabilities of said link driver from said link driver [col. 4, lines 7-9; col. 4, lines 21-23].

7. As to claims 13 and 24, Shima et al teach storing said capabilities of said link driver [col. 4, lines 18-19].

8. As to claims 15 and 26, Shima et al teach receiving configuration information for said link driver [col. 4, lines 7-9; col. 4, lines 21-23].

9. As to claims 16 and 27, Shima et al teach generating said link driver configuration from [col. 4, lines 7-9; col. 4, lines 21-23] said capabilities and said configuration information.

10. As to claims 17 and 28, Shima et al teach storing said configuration data [col. 4, lines 18-19].

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 14, 18, 25, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima et al., US patent No. 6,446,142.

As to claims 14, 18, 25, and 29, Shima et al teach generating a node in a list for said link driver and storing said capabilities of said link driver in a data field of said node. Shima et al do not show the list is in a form of linked list. However, Shima et al teach a linked list form [P1394 standard draft 8.0v2 in col. 1, lines 15-20 disclosing a configuration ROM storing entries for node capabilities within a root directory providing a pointer to another directory which has same structure as the root directory].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a form of linked list for storing said capabilities for easiness of managing a node by a pointer [col. 6, lines 15-20].

13. Claims 19, 20, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima et al., US patent No. 6,446,142 in view of Levy et al., US patent No. 6,212,633.

As to claims 19, 20, 30, and 31, Shima et al. do not disclose receiving an input of user defined configuration data for a link driver.

Levy et al teach a method for configuring a link device of a P1394 serial bus based on capabilities [col. 9, lines 10-26] of a link driver and an input of user defined configuration data received [col. 10, lines 43-55].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shima et al and Levy et al because they both teach configuring a link device of a P1394 serial bus based on capabilities and Levy et al's teaching of receiving an input of user defined configuration

data for a link driver would increase flexibility/user friendliness in dynamically configuring a link device of Shima et al.

Response to Arguments

14. Applicant's arguments filed 9/27/2004 have been fully considered but they are not persuasive.

Applicant argues in substance that a) equating a link driver and a device driver is inaccurate when link drivers and device drivers are functionally different and also demands proof of examiner's argument that a device driver includes a link driver. For this point a), Shima et al teach each device of a plurality of devices [see fig. 2] which must or inherently has a link chip in order to communicate via a link layer of the device with a device conforming to IEEE 1394-1995 standard. Specifically, an appropriate device driver corresponding with a device of a plurality of devices should be identified and loaded in the processor [CPU 42 in fig. 3] in order to control the link chip of IEEE 1394-1995 link specifics [col. 2, lines 31-39] and in order to communicate with other device [col. 3, lines 20-22] conforming to the IEEE 1394-1995 standard. Thus, the device driver of the device supporting and controlling the link chip should include or be a link driver. For example, White [in fig. 3 and col. 4, lines 8-20 of US patent No. 6,041,286] discloses device drivers control a link chip; in other words, the device drivers include a link driver controlling the link chip.

Applicant argues in substance that b) Shima teaches that objects represent devices and devices are separate functionally and structurally from drivers and also demands proof that device is equivalent to a link driver; again, a device is not a link

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driver. For this point b), the device driver is a software component for interacting with the corresponding hardware device; in order to conform to the IEEE 1394-1995 standard, the hardware device of Shima should include a link chip; thus, the device driver interacting with the hardware device including the link chip includes a link driver. In order to interact with the device having the link chip, the characteristic of the device including the link characteristic [col. 2, lines 33-39] should be implemented into the device driver. The 'object' of Shima representing capabilities of the corresponding device; an object is searched, detected, and copied [this 'copied' means 'loaded or implemented' into the device driver to interact with the device] from a library of objects for a known device the object; an object is generated from characteristic information received via the device driver during enumeration for a new device, then the generated object [this 'generated object' or 'object' equates 'driver configuration' of claim to be loaded or implemented into the device driver to interact with the corresponding device] is maintained in the library of objects and copied.

Applicant argues that c) Shima is talking about generating objects that represents devices, not detecting capabilities of a link driver also demands proof that Shima teaches detecting the capabilities of a link driver. In fact, as seen the limitation 'capabilities of said link device' in original claims 1-9 and the limitation 'capabilities of said link driver' in added claims 10-31, capabilities of said link device and capabilities of said link driver is same. Again, Shima teaches an 'object' represents capabilities of the corresponding device and the 'object' is the same as capabilities of the corresponding

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device driver including a link driver; and the 'object' is searched, detected, and copied from a library of objects.

For the reasons set forth above, the rejections are respectfully maintained.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO** will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

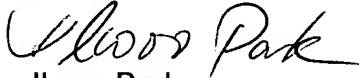
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ilwoo Park whose telephone number is (571) 272-4155. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ILWOO PARK
PRIMARY EXAMINER



Ilwoo Park
Primary Examiner
January 5, 2005